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ABSTRACT

This study examined the relationship between teacher education students' scores on basic skills admission tests and graduating seniors' scores on the National Teacher Examinations (NTE) at Eastern Kentucky University. The 1981-82 basic skills test scores for 262 teacher education students were compared with their NTE scores taken in 1984-85 during their student teacher semester. Scores on the Nelson Denny Reading Test, McGraw-Hill Writing Test, and Math Tests of the Comprehensive Tests of Basic Skills were converted to standard scores for comparison with Professional Knowledge, Communication Skills, and General Knowledge of the National Teacher Examinations. A Pearson Product Moment Correlation was calculated for each relationship. Results showed a strong relationship between basic skills of students and their subsequent scores on the NTE. The highest correlations were: (1) NTE Communication Skills and reading vocabulary; (2) NTE General Knowledge and reading comprehension; (3) NTE Professional Knowledge and writing; (4) NTE Communication Skills and writing; (5) NTE Professional Knowledge and reading vocabulary; (6) NTE Communication Skills and reading comprehension; (7) NTE General Knowledge and writing; and (8) NTE General Knowledge and math concepts. (JAZ)

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TEACHER EDUCATION STUDENTS:

A LOOK AT BASIC SKILLS ADMISSION TESTS

AND

NATIONAL TEACHERS EXAMINATION SCORES

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TEACHER EDUCATION STUDENTS: A LOOK AT BASIC SKILLS ADMISSION TESTS AND NATIONAL TEACHER EXAMINATION SCORES

Introduction

An important area of concern in professional education is the identification of qualified students and their admission to teacher education programs. Of even greater concern is the quality of the graduates of teacher education programs. The public and many educators consider the National Teachers Examination scores of teacher education graduates as an important criterion indicating the quality of preparation (and presumably the quality of the teacher) of the beginning teacher. It may then be assumed that teacher education graduates who score highest on the National Teachers Examination are the best prepared teachers, and/or that those institutions whose students score the highest have the best teacher education programs. This study examines the relationships between initial skills and National Teachers Examination scores at the completion of teacher education programs.

Background

Before being admitted to a teacher education program in Kentucky, students are required to achieve minimum criterion levels on all basic skills. The standard that became effective with the 1984-85 academic year stated that standard scores for language, reading, spelling, and mathematics must be at or above the 50th percentile as compared with national high school seniors.

Admission criteria before 1984 simply stated that prospective teachers must be at least "average" on all basic skills before admission to programs. Since Kentucky educators often defined "average" as any score within the 4th, 5th, or 6th stanine, the 23rd percentile, which represents the lowest level within the 4th stanine, was set as the admission standard by Eastern Kentucky University and several other universities. Basic skill admission criteria were relatively lower in the past because of the poorer educational

opportunities provided by some school systems. Many intelligent and highly motivated students have been able to complete programs and graduate from college even though they may have entered with lower than average basic skills. Although the majority of those students who were admitted to a teacher education program with slightly below average basic skills did improve, their National Teachers Examination scores tended to be below the 50th percentile.

Hypothesis

This study examined the relationship between teacher education students' scores on basic skills admission tests and graduating seniors' scores on the National Teachers Examination at Eastern Kentucky University. It tested the null hypothesis that there is no significant relationship between teacher education students' scores on basic skills tests and their scores on the National Teachers Examination. Included are basic skills scores on math computation, math concepts, reading comprehension, reading vocabulary and writing (grammar).

Procedures

The 1981-82 basic skills test scores for 262 Eastern Kentucky Univerity teacher education students were compared with their National Teachers Examination scores taken in 1984-85 during their student teacher semester. Scores on the Nelson Denny Reading Test, McGraw-Hill Writing Test, and Math Tests (computation and concepts) of the Comprehensive Tests of Basic Skills were converted to standard scores for comparison with Professional Knowledge, Communication Skills, and General Knowledge of the National Teachers Examination.

A Pearson Product Moment Correlation was calculated for each relationship. A further comparison was made between Eastern Kentucky University teacher education students scoring above or below the mean on the basic skills tests and their scores on the National Teachers Examination.

Analysis

This study compared the National Teachers Examination scores of those students who were above or below basic skill levels at the time they completed their teacher-education admission tests during the 1981-82 academic year. Scores for the Nelson Denny Reading Test, McGraw-Hill Writing Test, and the math tests of the Comprehensive Tests of Basic Skills were converted to standard scores equivalent to national norms for each test. Basic skills standard scores for those 1981-82 students who completed one or more NTE tests before the fall 1985 semester were compiled. The number of students who completed each section of the National Teachers Examination varied because many students were not required to take the Communication Skills or General Knowledge sections of the National Teachers Examination until Fall 1984. Of the 608 students who completed all admission tests (81-82) there were 262 (43%) who took one or more National Teachers Examination

tests before or during their student teaching semesters. The basic skill scores of the 608 students were divided into above average and below average categories. The above average group had scores that were at or above the 50th percentile on all their basic skill tests. The below average group had one or more scores below the 50th percentile.

Students entering the program who scored at the 50th percentile or higher on basic skills also had a higher National Teachers Examination percentage above the 50th percentile than the scores reported for all Kentucky state universities.

Results

The results of this study support the strong relationships between basic skills of students admitted to the teacher education program at Eastern Kentucky University and their subsequent scores on the National Teachers Examination. The null hypothesis was rejected a the .01 level for

all relationships tested. The highest correlations between the National Teachers Examination scores and basic skills tests were: NTE Communication Skills and reading vocabulary (.63); NTE General Knowledge and reading comprehension (.60); NTE Professional Knowledge and writing (.60); NTE Communication Skills and writing (.60); NTE Professional Knowledge and reading vocabulary (.58); NTE Communication Skills and reading comprehension (.57); NTE General Knowledge and writing (.53); and NTE General Knowledge and math concepts (.53).

Table 1 shows the correlations between the National Teachers Examination and basic skill tests. The correlations range from .63 between reading vocabulary and the NTE Communication Skills test to .35 between mathematics computation and the various special area tests. It should be noted, however, that National Teachers Examination standard scores for each specialty area vary since the means and standard deviations are different for each test.

TABLE 1

Pearson Product Moment Correlation
Between Basic Skill Tests and NTE

BASIC SKILLS TESTS	NATIONAL TEACHERS EXAMINATION			
	Prof. Know.	Comm. Skills	Gen. Know.	Spec. Areas
Math Computation	.4331*	.3161*	.4573*	.3545*
Probability	.0001	.0004	.0001	.0001
Number	262	121	121	254
Math Concepts	.4099*	.3779*	.5275*	.4199*
Probability	.0001	.0001	.0001	.0001
Number	262	121	121	254
Read. Compre.	.4998*	.5735*	.6001*	.3867*
Probability	.0001	.0001	.0001	.0001
Number	262	121	121	254
Read. Vocabulary	.5840*	.6291*	.5560*	.4220*
Probability	.0001	.0001	.0001	.0001
Number	262	121	121	254
Writing (Grammar)	.5977*	.5976*	.5304*	.4499*
Probability	.0001	.0001	.0001	.0001
Number	262	121	121	254

* Significant at the 0.01 level

Tables 2 and 3 show the frequency and percentage of students whose NTE scores were in each quartile according to basic skill levels. The sum of the NTE percentages for the upper and third quartiles indicate that 72.3% of the Professional Knowledge scores of the high group were at or above the 50th percentile, but only 24.6% of the low basic skills group were above average. Comparisons of the two groups for other NTE sections were Communication Skills (86.1% and 24.7%), and General Knowledge (80.5% and 30.6%). Students scoring above average on the basic skills also scored significantly higher on all NTE tests than students who scored below average.

TABLE 2

Frequency and Percentage of NTE Scores, 1982-85,
by Quartiles of Eastern Kentucky University Students
Who Scored Above Average on All Basic Skill Tests in 1981-82

PROFESSIONAL KNOWLEDGE

Quartiles:	Upper	Third	Second	First	Total
Range:	667-691	659-666	649-658	600-648	600-691
Number:	28	32	21	2	83
Percentage:	33.7%	38.6%	25.3%	2.4%	100%

COMMUNICATION SKILLS

Range:	670-692	662-669	651-661	600-650	600-692
Number:	17	14	5	0	36
Percentage:	47.2%	38.9%	13.9%	0%	100%

GENERAL KNOWLEDGE

Range:	667-695	657-666	646-656	600-645	600-695
Number:	17	12	7	0	36
Percentage:	47.2%	33.3%	19.5%	0%	100%

TABLE 3

Frequency and Percentage of NTE Scores, 1982-85,
by Quartiles of Eastern Kentucky University Students
Who Scored Below Average on All Basic SKill Tests 1981-82

Quartiles:	Upper	Third	Second	First	Total
PROFESSIONAL KNOWLEDGE					
Range:	667-691	659-666	649-658	600-648	600-691
Number:	10	34	74	61	179
Percentage:	5.6%	19.0%	41.3%	34.1%	100%
COMMUNICATION SKILLS					
Range:	670-692	662-669	651-661	600-650	600-692
Number:	3	18	48	16	85
Percentage:	3.5%	21.2%	56.4%	18.9%	100%
GENERAL KNOWLEDGE					
Range:	667-695	657-666	646-656	600-645	600-695
Number:	6	20	46	13	85
Percentage:	7.1%	23.5%	54.1%	15.3%	100%

Conclusions

It seems obvious from the above statistics that NTE scores of prospective teachers are highly related to their basic admission test scores. A simplistic procedure to raise a university's average NTE scores would be to apply admission standards that eliminate the majority of students who score below average on any of their admission tests. Without opportunities to improve their basic skills, however, many potentially excellent teachers would not be able to enter the profession. This could be especially true of prospective primary-level teachers who may not have the necessary knowledge in advanced mathmatics needed to achieve above average computation or concept scores. It would also eliminate capable students who came from school systems that have not adequately prepared them for college.

Many standards have been raised, however. Kentucky's increased high school graduation requirements, combined with higher admission

standards (2.25 GPA and 50th percentile on basic skills) and a required 2.5 GPA before student teaching, should increase future average NTE scores. Whether or not significantly higher NTE scores will improve the quality of classroom teachers is a question for additional study.

It is important to have a clearer understanding of the requisite basic knowledge and skills that teacher education students possess upon admission to a teacher education program. This study supports the hypothesis that these skills are highly correlated with the end product, at least as measured by the National Teachers Examination. This may help to establishing appropriate cut-off scores on basic skills tests for future admission to teacher education programs.

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